NEZ PERCE – CLEARWATER NATIONAL FORESTS
DESIGN FEATURES
MARCH 2020

Introduction

The intent of this document is to identify common Design Features that are included in Forest projects.

Design Features

Design Features describe the blueprint for project development and are an integral component of the proposed action. Design Features are generally identified early in the NEPA process as part of developing the proposed action and act as the sideboards for the activities being proposed when moving into and through the effects analysis. Design Features are typically derived from Forest Plan Standards and Guidelines, and Forest Service Manual and Handbook policy and direction. Additionally, design Features often include mandatory contract provision requirements, BMPs, Idaho State Water Quality Standards, Idaho Forest Practices Act Rules, and similar laws, rules or policy. Generally, design Features reiterate the things we are required to do to ensure our decision document is supported by an environmental analysis that is consistent with the Forest Plan and applicable laws and regulations. As such, design Features do not need to be itemized or individually listed in every NEPA document…they are requirements that are inclusive by reference. For the Nez Perce - Clearwater Forests, design Features that are commonly applied to projects (***as applicable to the individual project***) include:

Old Growth and Snags

☐ Projects maximizes the retention of old-growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease. ***Applies to HFRA Title VI §602 (e); HFRA Title VI §603***

☒ Projects are designed to meet Forest Plan Standards for Old Growth. ***NP Forest Plan Appendix N; Clearwater Forest Plan Appendix H; 1993 Clearwater Forest Plan Lawsuit Settlement***

☐ Project maximizes retention of old-growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects & disease, and reduce the risk or extent of, or increase the resilience to, wildfires. ***Applies to HFRA Title VI §605***

☒ On a 100-acre basis, to maintain snag habitat recommendations and guidelines, timber harvest prescriptions:

- Retain a minimum of 5 live trees per acre inside of riparian areas and 4 live trees per acre in all other areas to act as future snags and meet Forest Plan Guidance. Trees retained for reasons other than snag recruitment count toward this number. The minimum is an average across a 100-acre basis and does not mean that 4 (or 5) live trees must be retained on every acre. Leave trees should be grouped into clumps as available.

- Retain snags in the amounts in Table 1 when assessed on a 100-acre basis to meet current science (Bollenbacher 2009a). If sufficient snags are not available to meet the numbers in the table, retain additional live trees. The distribution of snags does not need to be uniform – some areas may have more snags, others may have fewer or none – the intent is to retain snags across a project area, with a portion of snags retained within timber sale units. Preferably manage snags in clumps. However, do not exclude consideration of single, scattered snags or replacement snags where needed.

Table 1: Minimum snags per acre across a on a 100-acre basis

Dominance Group	Broad PVT Group	Minimum Number of	Additional Snags per acre	Total Minimum Number of

		Snags per acre ≥15" DBH	≥20" DBH	Snags per Acre
Lodgepole pine[1]	All	1	1	2
All Other Groups	Warm Dry	2	1	3
	Warm Moist	3	3	6
	Cool Moist and Cold	3	1	4

[1]*Lodgepole pine is only the dominance type here – this does not mean that when harvesting in lodgepole pine stands that lodgepole pine must be left as snags. Western larch and Douglas-fir often occur as relict trees and snags mixed with lodgepole. If these or other relict trees exist within the lodgepole dominance group, they may be retained to meet these numbers*

- In order to comply with OSHA safety standards, snags that are safety or operational hazards will be removed. ***NP Forest Plan Appendix N; Clearwater Forest Plan Appendix H; Regional Guidance (Bollenbacher 2009a); Implemented through Silviculture Prescriptions, Sale Layout, and Contract Provisions***

Silviculture

☒ Silvicultural prescriptions would be designed to promote within-stand resilience (as described in the purpose and need), create a variety of patch sizes on the landscape, and provide species diversification. Regeneration harvest, intermediate harvest, or pre-commercial thinning would be utilized. ***National Forest Management Act (NFMA 47 FR 43037, Sept. 30, 1982 Sec. 219.27)***

☒ Regeneration harvest units would be reforested at varying stocking levels depending on biophysical setting and silvicultural prescription. ***(NFMA 47 FR 43037, Sept. 30, 1982 Sec. 219.27)***

☒ When trees are cut to achieve timber production objectives, the cuttings shall be made in such a way as to assure that the technology and knowledge exists to adequately restock the lands within 5 years after final harvest. ***(NFMA 47 FR 43037, Sept. 30, 1982 Sec. 219.27)***

☒ Prescribed fire or mechanical methods may be used after harvest, where feasible, to reduce activity fuels and/or provide site preparation for replanting. ***NP Forest Plan – Standard, Protection; CLW Forest Plan – Standard, Protection***

☒ Openings shall be located to achieve the desired combination of multiple-use objectives. The blocks or strips cut shall be shaped and blended with the natural terrain, to the extent practicable, to achieve aesthetic, wildlife habitat, or other objectives established in the plan. ***(NFMA 47 FR 43037, Sept. 30, 1982 Sec. 219.27)***

Wild and Scenic

Eligible / Suitable Wild and Scenic Rivers

☐ Maintain the classification and the identified outstandingly remarkable values for the eligible/ suitable wild and scenic river ***NP Forest Plan Standard; CLW Forest Plan Standard***

Designated Wild and Scenic Rivers

☐ Protect and enhance the identified outstandingly remarkable values for the designated wild and scenic river ***NP Forest Plan Standard; CLW Forest Plan Standard***

Aquatics

☐ PACFISH/INFISH - Where catastrophic events such as fire, flooding, volcanic, wind, or insect damage result in degraded riparian conditions, allow salvage and fuelwood cutting in Riparian Habitat Conservation Areas only where present and future woody debris needs are met, where cutting would not retard or prevent attainment of other Riparian Management Objectives, and where adverse effects on listed anadromous/inland native fish can be avoided. For watersheds with listed salmon or

designated critical habitat (or INFISH priority watersheds), complete Watershed Analysis prior to salvage cutting in RHCAs. ***NP Forest Plan – Amendment 20; CLW Forest Plan – Amendment 10***

☒ PACFISH/INFISH - Apply silvicultural practices for Riparian Habitat Conservation Areas to acquire desired vegetation characteristics where needed to attain Riparian Management Objectives. Apply silvicultural practices in a manner that does not retard attainment of Riparian Management Objectives and that avoids adverse effects on listed anadromous/inland native fish. Including:

- No timber harvest is to occur within 300 feet of fish-bearing streams, 150 feet of perennial non-fish bearing water, 150-foot slope distance from the edge of Ponds, lakes, reservoirs, and wetlands greater than 1 acre, and 100-foot slope distance from seasonally flowing or intermittent streams, wetlands less than 1 acre, landslides, and landslide-prone areas.
- Interim RHCA widths may be increased where necessary to achieve riparian management goals and objectives or decreased where interim widths are not needed to attain RMOs or avoid adverse effects to listed salmon. Generally, RHCA modifications will require completion of Watershed Analysis to provide the ecological basis for the change. However, RHCAs may be modified in the absence of Watershed Analysis where stream reach or site-specific data support the change. In all cases, RHCA modifications, the rationale supporting those changes, and the effects of the changes will be documented. Within the range of listed salmon/inland native fish, modification of RHCAs will be done in consultation with NMFS/USFWS. ***NP Forest Plan – Amendment 20; CLW Forest Plan – Amendment 10***

☒ PACFISH/INFISH – Roads Management: For each existing or planned road, meet the Riparian Management Objectives and avoid adverse effects on listed anadromous/inland native fish by:

- Completing Watershed Analyses prior to construction of new roads or landings in Riparian Habitat Conservation Areas (or within INFISH priority watersheds) .
- Minimizing road and landing locations in Riparian Habitat Conservation Areas.
- Initiating development and implementation of a Road Management Plan or a Transportation Management Plan. At a minimum, address the following items in the plan:
  - Road design criteria, elements, and standards that govern construction and reconstruction.
  - Road management objectives for each road.
  - Criteria that govern road operation, maintenance, and management.
  - Requirements for pre-, during-, and post-storm inspections and maintenance.
  - Regulation of traffic during wet periods to minimize erosion and sediment delivery and accomplish other objectives.
  - Implementation and effectiveness monitoring plans for road stability, drainage, and erosion control.
  - Mitigation plans for road failures.
- Avoiding sediment delivery to streams from the road surface.
  - Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is infeasible or unsafe.
  - Route road drainage away from potentially unstable stream channels, fills, and hillslopes.
- Avoiding disruption of natural hydrologic flow paths
- Avoiding sidecasting of soils or snow. Sidecasting of road material is prohibited on road segments within or abutting RHCAs in watersheds containing designated critical habitat for listed anadromous fish (or within INFISH priority watersheds). ***NP Forest Plan – Amendment 20; CLW Forest Plan – Amendment 10***

☒ PACFISH/INFISH – Roads Management: Construct new, and improve existing, culverts, bridges, and other stream crossings to accommodate a 100-year flood, including associated bedload and debris, where those improvements would/do pose a substantial risk to riparian conditions. Substantial risk improvements include those that do not meet design and maintenance criteria, or that retard attainment of Riparian Management Objectives, or that do not protect designated critical habitat (or

INFISH priority watersheds) from increased sedimentation. Base priority for upgrading on risks to listed anadromous fish/inland native fish and their designated critical habitat (or priority watershed) and the ecological value of the riparian resources affected. Construct and maintain crossings to prevent diversion of streamflow out of the channel and down the road in the event of failure. ***NP Forest Plan – Amendment 20; CLW Forest Plan – Amendment 10***

☒ During road work (construction, re-construction, maintenance, decommissioning, or long-term storage) activities, measures are to be taken to prevent or minimize sediment from entering streams during project activities and in the long-term, such as: (a) placing removable sediment traps below work areas to trap fines; (b) when working instream, removing all fill around pipes prior to bypass and pipe removal (where this is not possible, use non-eroding diversion); (c) revegetating scarified and disturbed soils with grasses (weed free) for short-term erosion protection and with shrubs and trees for long-term soil stability; (d) mulching with native materials, where available, or using weed-free straw to ensure coverage of exposed soils; (e) dissipating energy in the newly constructed stream channels using log or rock weirs; and (f) armoring channel banks and dissipating energy with large rock whenever possible. **Applies to projects using *Idaho Stream Crossing 10-year Programmatic BiOp***

☒ Design prescribed burn projects and prescriptions to contribute to the attainment of the Riparian Management Objectives. ***Fire/Fuels Programmatic BA for Nez Perce – Clearwater Forests; NP Forest Plan – Amendment 20; CLW Forest Plan – Amendment 10***

☒ Burning may occur in both streamside and landslide prone RHCA's, with the prescribed fire planned and managed to expect the following results in the streamside RHCA:

- No more than 5% mortality in the mature forest canopy within the streamside RHCA, with this mortality not highly concentrated.
- Less than 5% of the streamside RHCA is burned at high severity (litter and duff consumed), with these patches not highly concentrated. ***Applies to projects using Fire/Fuels Programmatic BA for Nez Perce – Clearwater Forests***

☒ The Purchaser/Contractor shall take all reasonable precautions to prevent possibility of fuel spills. ***Idaho Stream Crossing 10-year Programmatic BiOp; Mandatory Contract Provisions***

☒ WATER QUALITY – Idaho Department of Environmental Quality (IDEQ) accepts the Forest(s) management practices to control pollutant sources. For example, page 16 of the South Fork Clearwater River TMDL Implementation Plan states: *"The Forest(s) will use best management practices to control pollutant sources under their jurisdiction. The Forest(s) Plans require that most projects have watershed improvements associated with the projects. Most of the best management practices contain both sediment source reduction and shade improvement."* ***Applies to projects within TMDL watershed***s - **South Fork Clearwater River TMDL Implementation Plan; Lolo Creek Tributaries Subbasin Assessment TMDL; Lochsa River Subbasin Temperature TMDL; Potlatch River Subbasin Assessment TMDLs**

Grazing

☐ Meadow/range maintenance may consist of hand falling trees within the designated areas. Trees will generally be left on site. ***NP Forest Plan – Amendment 20; NP Forest Plan – Grazing***

☐ Grazing plans may be restricted after prescribed burning activities. Areas burned by prescribed fire will be evaluated during the seasonal grazing plan development to determine if grazing restrictions are appropriate. ***Grazing Permit Administration – yearly grazing plan development***

☒ Coordinate livestock grazing on timber harvest units as necessary to provide for tree regeneration. ***Nez Perce and Clearwater Forest Plan Standards***

Archaeology

☒ Known historic (NRHP Eligible/historically significant) properties or sites will be avoided or protected during project implementation. ***NP/CLW Forest Plan Standard; Clearwater Forest Plan Standard, Implemented through Mandatory Contract Provision***

☒ Ground-disturbing activities would be halted if cultural resources are discovered until an Archaeologist can properly evaluate and document the resources in compliance with 36 CFR 800. ***36 CFR 800; Implemented through Mandatory Contract Provision***

Rare Plants

☒ Operations shall be conducted in a manner that does not damage or disturb known populations of Threatened or Endangered plant species. ***Implemented through Mandatory Contract Provision***

☒ Purchaser shall immediately notify the Forest Service if its operations disturb or damage any known/identified Threatened or Endangered plant species/area and shall immediately halt its operations in the vicinity of such area until the Forest Service authorizes continued operations. ***Implemented through Mandatory Contract Provision***

Soils

☒ Purchaser's Operations shall be conducted reasonably to minimize soil erosion. Equipment shall not be operated when ground conditions are such that excessive damage will result. Purchaser shall adjust the kinds and intensity of erosion control work done to ground and weather conditions and the need for controlling runoff. Erosion control work shall be kept current immediately preceding expected seasonal periods of precipitation or runoff. ***FSH 2409.15; FS-990a; Implemented through Mandatory Contract Provision***

☒ When utilizing cable and aerial yarding systems, use suitable measures to minimize soil disturbance when yarding over breaks in slope and fully suspend logs to the extent practicable when yarding over RHCAs and streams. ***FSH 2409.15, National BMPs (FS-990a); Implemented through Mandatory Contract Provision***

☒ Apply erosion and drainage control measures (e.g. waterbars, drain ditches, woody material) in log yarding corridors (cable or skyline) where bare mineral soil is exposed, and water flow may be confined. ***FSH 2409.15, FS-990a Implemented through Mandatory Contract Provision***

☒ Scarify and recontour excavated skid trails to restore slope hydrology and soil productivity. For erosion control purposes, an average of 5 to 8 tons of coarse woody debris per acre is left on site. ***FSH 2409.15, FS-990a; Implemented through Contract Provisions***

☒ Scarify non-excavated skid trails and landings that are compacted or entrenched 3 inches or more. Scarify to a depth of 6 to 14 inches. ***FSH 2409.15; Implemented through Contract Provisions***

☒ Coarse woody debris (greater than 3 inches in diameter) would be retained following completion of activities. ***Implemented through Coarse Wood Contract Provision***

☒ Meets or exceeds Idaho Forest Practices for operating ground-based equipment on slopes. ***Idaho Forest Practices; Implemented through Contract Provisions***

☐ Decommission any temporary roads constructed no later than 3 years after the date on which the project is completed. ***Only Applies to Projects using HFRA Title VI §603 & 605***

☒ Provide that all roads are planned and designed to re-establish vegetative cover on the disturbed area within a reasonable period, not to exceed 10 years after the termination of a contract, lease or permit, unless the road is determined necessary as a permanent addition to the National Forest Transportation System. ***NFMA 47 FR 43037, Sept. 30, 1982 Sec. 219.11***

Wildlife

☒ During nesting season, trees with cavities identified as being actively occupied by primary cavity nesting birds, or actively occupied raptor nests are retained where safe to do so. ***Migratory Bird Treaty Act (MBTA); Bald & Golden Eagle Protection Act (BGEPA); Regional Guidance***

☐ Protect a 660-foot buffer around occupied bald eagle nests from all timber harvest and road maintenance/reconstruction/construction activities, and a 1000-foot nest buffer from helicopter logging or RX fire aerial ignition, from January 1 to May 30. ***Bald & Golden Eagle Protection Act (BGEPA); Mandatory Contract Provision***

☒ Moose Winter Range (MA21): Limited treatments as outlined in the Nez Perce Forest Plan may take place in designated MA21. ***Applies to projects using Nez Perce Forest Plan MA21 Standard***

☒ Maintain a minimum 40-acre yearlong no-treatment buffer (no ground disturbing activities) around recently occupied goshawk nest trees **EO 13186**; ***Migratory Bird Treaty Act (MBTA); 2016 Forest Service/ Fish & Wildlife Service MOU; Regional Guidance; Mandatory Contract Provision***

☒ No timber harvest, hauling, road maintenance/reconstruction/construction, or prescribed burning (ignition) activities shall be allowed inside known occupied goshawk post-fledgling areas from April 15 to August 15. **EO 13186; *Migratory Bird Treaty Act (MBTA); 2016 Forest Service/ Fish & Wildlife Service MOU; Regional Guidance; Mandatory Contract Provision***

☐ Adhere to Northern Rockies Lynx Management Direction (NRLMD) Standards (with approved Exceptions and Exemptions). **Northern Rockies Lynx Management Direction (NRLMD)**

Air

☒ Coordinate with the Montana/Idaho Airshed Group when prescribed burns are scheduled to ensure compliance with the Clean Air Act. ***Clean Air Act***

Noxious Weeds

☒ Remove all mud, soil, and plant parts from “Off-road equipment” (includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles) prior to initial mobilization and any subsequent mobilizations, to limit the spread of noxious weeds. If Purchaser desires to clean Off-Road Equipment on National Forest land, they shall obtain prior approval from Contracting Officer as to the location for such cleaning and measures, if any, for controlling impacts. ***Mandatory Contract Provision B6.35***

Access Management

☒ Close existing gates (consistent with current motor vehicle restrictions) daily during non-operating hours. ***Implemented through Contract Provisions***